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minology of the reproductive organs of the Cryptogamia."——At a recent meeting of the French Academy, M. Planchon described a new species of American vine under the name of *Vitis berlandieri.*——Messrs. E. A. Rau and A. B. Hervey have issued a Catalogue of North American Musci, giving the names of the species and the general localities.——A valuable contribution to the subject of insect-destroying Fungi has been published by Prof. A. Giard. Of these the most common is *Entomophthora muscæ*, so common in September and October in our apartments; a second type is *E. megaspermum*, a parasite of the cut-worm or larva of *Agrotis segetum*; others are *E. curvispora*, a parasite of *Simulium latipes*, a species of black fly, and *E. ovispora*, parasite of another fly (*Lonchæa vaginalis*). He regards Empusa and Tarichium as simply forms of Entomophthora, and to be used in the same sense as in zoölogy the nauplius or zoëa of a Crustacean. He describes as new a fungus parasite of the flesh fly, under the name of *Entomophthora calliphoræ.* He then describes the appearance of a gnat (Chironomus) attacked by the Empusa form of *Entomophthora rimosa*, and incidentally alludes to *E. conglomerata* of the mosquito. Finally M. Giard refers to the enormous services which Entomophthora renders to agriculture. "Nothing could be more easy than to multiply these parasites, and to introduce them into places where they had not hitherto existed." The caterpillars of the cabbage butterfly can be exterminated by watering them with water containing the spores of *E. sphærosperma.* By collecting, in winter, these caterpillars, mummified and filled with spores, they can be used in destroying the hordes of caterpillars of the next summer. Giard also recommends destroying the cut-worm by sprinkling over cabbage beds water holding the spores of the fungus in suspension.——Some peculiarities in the anthers of Clethra are described, by C. R. Barnes, in the *Botanical Gazette* for August and September.

ZOOLOGY.[1]

EGGS OF THE TREE CRICKET WANTED.—The undersigned would be much obliged for specimens of the eggs of the tree cricket (Œcanthus). They are laid in the terminal branches of the raspberry, plum, oak, grape, and almost any shrubs. The rows of punctures made by the ovipositor of the female are quite easily detected, and may be found during the Autumn and Winter. Send twigs by mail.—*A. S. Packard, Jr., Providence, R. I.*

DO FLYING FISH FLY—In the September number of the NATURALIST is a very interesting article on the subject, "Do Flying Fish Fly?" During the past summer I have been enabled to witness the flight of a good many flying fish of the large species known as *Exocœtus californicus* Cooper. The following extract from my field notes may be of some interest as bearing on this question:

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[1] The departments of Ornithology and Mammalogy are conducted by Dr. ELLIOTT COUES, U. S. A.

It flies for a distance sometimes of nearly a quarter of a mile, usually not rising more than three or four feet. Its motions in the water are extremely rapid, and its motive power is certainly the movement of its powerful tail in the water. On rising from the water the movements of the tail are continued for some seconds until the whole body is out of the water. While the tail is in motion the pectorals are in a state of very rapid vibration, and the ventrals are folded. When the action of the tail ceases, the pectorals and ventrals are spread and, as far as we can see, held at rest. When the fish begins to fall, the tail touches the water and the motion of the pectorals recommences, and it is enabled to resume its flight, which it finally finishes by falling in the water with a splash. When on the wing it resembles a large dragon-fly. The motion is very swift; at first it is in a straight line, but this becomes deflected to a curve, the pectoral on the inner side of the arc being bent downward. It is able to some extent to turn its course to shy off from a vessel. The motion seems to have no reference to the direction of the wind, and we observed it best from the bow of a steamer off Santa Catalina island, in early morning, when both air and water were free from motion.—*David S. Jordan, Ind. State Univ., Bloomington, Ind.*

FLIGHTS OF " FLIES."—Under the head of " traveling flies," the *Scientific American* notices the occurrence of a vast cloud of flies on the Hudson river, between New Hamburg and Newburg. It reached southward from shore to shore as far as the eye could reach, and resembled a great drift of black snow. The insects were flying northward "as thick as snow flakes driven by a strong wind." The steamer *Mary Powell* ran into the fly storm off Haverstraw, some forty miles below where the *Martin* encountered it. The flies were " long and black and had light wings."

A dispatch from Halifax, Nova Scotia, states that on Sunday, Sept. 5, immense swarms of flies passed over Guysboro, 120 miles northeastward of Halifax. They came from the east and resembled a dark cloud.

A correspondent of the Toronto *Mail*, writing from East Pictou, Nova Scotia, describes a similar phenomenon as occurring there August 21. The flies, forming a veritable cloud, passed Lismore at 6 o'clock in the evening, close to the shore. They went with the wind, which was blowing lightly from the west, occupying about twenty minutes passing a given point. They made a loud, buzzing noise, which was heard by many who missed seeing them. They flew so low that some of them appeared to fall into the water. About two miles below Lismore they slightly changed their flight, heading more to the north.

CETONIA INDA.—This common insect which in former years was a harmless beetle feeding in early spring on the sap of freshly cut maple trees has, within two or three years, become very abundant and destructive in different parts of New England. During the past summer it collected in great numbers on green corn, eating the kernals and partly destroyed a field in Middleboro, Mass., as we learn from Prof. Jenks.—*A. S. P.*

CAUSE OF THE TWISTING OF SPIRAL SHELLS.—At the end of his essay on the development of the pulmonate Gasteropods, M. Fol inquires into the cause of asymmetry of univalve shells ; by most authors it has been ascribed to the folding round of the shell ; Ihering, however, regards the torsion of the shell as due to the asymmetry of the viscera. Fol regards both these opinions as too extreme, as in the Heteropoda asymmetrical arrangements manifest themselves at an extremely early period. In Helix and Limax the torsion does not appear so early, and is seen simultaneously in the viscera and in the shell. To explain the phenommena, it seems to be necessary to note the process of segmentation of the ovum ; but here unfortunately there is but little information. The fact that organs like the kidneys, which are, as we know, primarily double, are in the youngest of Gasteropod larvæ, single, seems to show that the asymmetry is produced prior to the commencement of the embryonic period. In conclusion, as reported in the Journal of the Royal Microscopical Society, the author points out how recent observations tend to favor the reëstablishment of the *Vermes* of Linnæus. It is impossible, Fol says, to compare the molluscan larva with a segmented worm larva ; they only correspond to the cephalic portion of the larva of an Annelid, or to an entire Rotifer ; the Mollusca are not segmented animals which have fused their segments, but they are animals which have remained simple. In the Vermes, on the other hand, the larval form (Lovenian, veliger, trochosphere) can, with variations in form, be traced through "worms," Annelids, Bryozoa, Brachiopods, and even Echinoderms, and these all form a phylum quite distinct from that of the Arthropoda on the one hand, and of the Chordata (Tunicata and Vertebrata) on the other.

THE YOUNG OF THE CRUSTACEAN LEUCIFER, A NAUPLIUS.—One of the most interesting observations which we have made this summer is, that Leucifer leaves the egg as a Nauplius. As Fritz Müller did not raise the young of Peneus, but relied upon surface collecting, his observations are not absolutely conclusive, but I have seen Leucifer lay its eggs, and I have seen the exit of the Nauplius from the egg, so the occurrence of a Nauplius is proved, absolutely, in one stalk-eyed Crustacean.

As almost nothing was known about the habits of Leucifer, and nothing whatever about its embryology, I have devoted especial attention to this interesting species this summer, but although the animals are very abundant I have been baffled in all my attempts to find the eggs or young until within the last week, but have now got on to the right track, and can get a complete history if the weather is calm for a week longer.

The animals are remarkably regular in their breeding habits. They copulate late in the afternoon; the eggs are laid about nine o'clock in the evening, and they hatch in about thirty-six hours. The eggs are attached very loosely in an irregular bunch of about twelve or fourteen, to the last pair of thoracic appendages. They fall off at the slightest touch, and this, together with the rapidity of their development, explains the failure to find them in specimens collected at the surface. As they do not flourish in confinement, the eggs cannot be procured in any quantity from captive specimens, and until their breeding habits were known, the investigation presented great difficulties. By going out about eight o'clock on a calm evening and dipping very carefully with a hand net, a great number of individuals may be procured, and if these are carried home with great care and left undisturbed until about ten o'clock, careful examination will then show that several specimens have bunches of new-laid unsegmented eggs. If these specimens are carefully picked out, and placed by themselves, they can be kept, without much difficulty, until the eggs hatch, on the second morning after the adults were collected.

The course of development is of unusual interest, as Leucifer, like Amphioxus, presents what must be regarded as an unmodified embryonic history. Segmentation is total and perfectly regular, and the cells double their number at each cleavage, even after they have become very small, and many hundreds in number.

There is a true invaginate gastrula, which is as beautifully simple, and unmodified as the well-known gastrula of Sagitta.

The Nauplius is a typical nauplius, very much like that of a barnacle, or that of Cyclops, and is a marked contrast to the peculiar and specialized Nauplius of Penæus. If I had not seen it hatch I should certainly have supposed it to be a Copepod embryo, as the resemblance is perfect.

In this connection I may state that Mr. Wilson has succeeded in raising zoëas from the eggs of Libinia, and of a closely-allied genus. In these, the most highly specialized of the Decapods, the embryonic record is accelerated so much that the zoëa has its full number of thoracic appendages when it leaves the egg, so the embryology of Leucifer is at one end of the series and the embryology of Libinia at the other.

Wilson has also raised the zoëas of the following crabs from the egg, this summer: Porcellana, Pinnixa, Sesarma, Pinnotheres, Callinectes.

The skin which the crab zoëa sheds soon after it leaves the egg has been regarded as a Nauplius skin, but the fact that the Nauplius of Leucifer leaves the egg encased in a similar skin, and molts it soon after, seems to indicate that it has no morphological significance.—*W. K. Brooks, Beaufort, N. C., Sept. 5.*

THE FRIGATE MACKEREL, AUXIS ROCHEI, ON THE NEW ENGLAND COAST. — The United States Fish Commission has obtained numerous specimens of a fish, before entirely unknown in the Western Atlantic. This is the frigate mackerel, *Auxis rochei*, twenty-eight barrels of which were taken in a mackerel seine, ten miles east of Block island, on the 3d of August, by the schooner *American Eagle*, Capt. Josiah Chase, of Provinceton, Mass.

The Frigate mackerel resembles in some particulars the common mackerel, in others the bonito; the genus Auxis being intermediate in its character between the Scomber and the related genera Pelamys and Orcynus. It has the two dorsal fins remote from each other as in Scomber, and the general form of the body is slender, like that of the mackerel. The body is, however, somewhat stouter, and instead of being covered with small scales of uniform size, has a corselet of larger scales under and behind the pectoral fins. Instead of the two small keels upon each side of the tail which are so noticeable in the mackerel, it has the single more prominent keel of the bonito and the tunny. Its color is grayish-blue, something like that of the pollack, the belly being lighter than the back. Under the posterior part of the body, above the lateral line, are a few cloudings or maculations resembling those of the mackerel. The occurrence of a large school of this beautiful species in our waters is very noteworthy, for the fish now for the first time observed are very possibly the precursors of numerous schools yet to follow. It is not many years since the bonito became an inhabitant of our waters, and the distribution and habits of the frigate mackerel are supposed to be very similar to those of the bonito, *Sarda pelamys*, and the little tunny, *Orcynus alliteratus*, which also first came on the coast in 1871, and have since been found in considerable numbers.

The frigate mackerel has been observed in the West Indies and other parts of the tropical Atlantic as well as on the coast of Europe. In Great Britain it is called the "plain bonito." It is not unusual in the Bermudas, where it is called the "frigate mackerel," a name not inappropriate for adoption in this country, since its general appearance is more like that of the mackerel than the bonito, while in swiftness and strength it is more like the larger members of this family.

Since the first appearance of this fish many new observations of its abundance have been received. These fish seem to have come in immense schools into the waters between Montauk point and George's bank, and from Mr. Clark's statements it appears that they have been observed in small numbers by fishermen in previous years. Several vessels have come into Newport recently, reporting their presence in immense numbers in the vicinity of Block island. It will interest the "Ichthyophagists' Club" to know that several persons in Newport have tested the fish, and pronounce it inferior to the bonito. Part of the flesh, that on the posterior part of the body, is white, but behind the gills it is black and rank, while the meat near the backbone is said to be of disagreeable, sour flavor.

It is hard to predict what its influence will be upon other fishes already occupying our waters. Its mouth is small and its teeth feeble, so that it is hardly likely to become a ravager like the bonito and the bluefish. There is little probability, on the other hand, that its advent will be of any special importance from an economical point of view, for its oil does not seem to be very abundant, and it would hardly pay at present to capture it solely for the purpose of using its flesh in the manufacture of fertilizers.

Mr. A. Howard Clark, in charge of the Fish Commission station at Gloucester, has communicated to Prof. Baird some interesting facts regarding its abundance. From these statements it would also appear that the species has been observed occasionally in past years. He writes under date of August 10th: "I have received this morning from the schooner *Fitz J. Babson*, just arrived from Block island, a fish answering to your description of the Auxis, having a corselet of scales around the pectoral fin as in the tunny. The captain of the vessel, Joshua Riggs, reports that about a week ago he had a hundred barrels in the seine at one time, and saw over twenty schools of them. He saw them as far east as Sow-and-Pig light ship. They are very easy to catch, flip like menhaden, do not rush, and are not frightened at the seine. They go in immense numbers, he thinks, as many as one thousands barrels to a school. The day after the appearance of these fish the mackerel disappeared, but he does not know whether the mackerel were driven away by them or not. They feed on mackerel food. Mr. Daniel Hiltz, of the same vessel, says that he caught one of just the same kind in February, 1879, on a haddock trawl on the eastern part of the Middle Bank in forty fathoms of water. He took it to Boston, where it was called a young bonito."

Mr. John Henderson, of the schooner *Sarah C. Wharf*, says that two vessels caught such fish recently, eastward of here; the schooner *American Eagle*, of Provincetown, took a number of barrels of them into Newport, and sold them for a dollar a barrel. Another Cape Cod vessel, he does not know her name, took about fifty barrels of them and threw them away. All the mackerel seiners from Block island report seeing quantities of this new fish within the past fortnight. The captain of the schooner *Sarah C. Wharf* says he first saw them a fortnight ago some fifteen miles off Block island. The captain and several of the crew of the *Ella M. Johnson*, of Newburyport, just arrived from Block island, state they saw abundance of the Auxis, but did not know what it was until reports came from you at Newport. They opened one and found in its stomach the ordinary red mackerel food. This crew differ with the crew of the schooner *Fitz. J. Babson* with regard to the ease of capturing them—think them rather difficult to take; say they flip like porgies, and do not rush like mackerel; they saw ten large schools of them on Saturday last when some fifteen miles south of Block island.

I hope that any reader of the AMERICAN NATURALIST who has seen this fish will mention it; some may, perhaps, have an opportunity of studying its habits. The length of those I have seen ranges from twelve to sixteen inches, and their weight from three-quarters of a pound to a pound and a-half or more. Those sent to New York market were part of the lot taken by the schooner *American Eagle* and brought into Newport, whence they were shipped by Mr. Thompson, a fish dealer of this place. It would require from eighty to one hundred of them to fill a barrel, so the estimate of Capt. Riggs that there are a thousand barrels in one of the schools, shows how exceedingly abundant they must be.

Capt. N. E. Atwood, of Provincetown, Mass., the veteran fisherman-ichthyologist, has examined the specimens, and is satisfied that they belong to the same species as fish which he found abundant in the Azores in 1840, when, led by the reports of Cape Cod whalers, he went to these islands in search of mackerel, the mackerel fishing being poor at home. No mackerel were found except the "frigate mackerel" referred to in this note.—*G. Brown Goode, Summer Station U. S. Fish Com., Newport, R. I., Aug. 30, 1880.*

ON THE OCCURRENCE OF FREIA PRODUCTA WRIGHT, IN THE CHESAPEAKE BAY.—Sometime in 1851 Prof. Leidy called attention to the existence of *Freia ampulla* in American waters, and from the poor figures of the European form then in existence, he was led to consider it a new species under the name of *F. americana*, but he now considers both forms the same. As they are amongst the most singular and beautiful of the family of the trumpet animalcules or Stentorina, I take pleasure in announcing that I have found the still more interesting species, *F. producta* T. S. Wright, in shallow waters on the western shore of the Chesapeake, attached in vast numbers to the shells of oysters, in company with ? Loxosoma and other bryozoa.

The tubes in which the animalcule resides are formed of a narrow transparent ribbon of horny consistency, wound into a spiral and terminating in a trumpet-shaped extremity from which the odd peristome of the inhabitant protrudes. The basal or attached end of the tube is usually bent at an angle to the tube and bears a striking resemblance to the foot end of a stocking fastened to some other object by the surface on which the sole rests. This portion is not composed, like the tube, of a spiral ribbon, but is simply a thin-walled sac, from the open end of which the ribbon takes its rise, but it is composed of the same kind of material. Many of the tubes show the rim of a trumpet projecting from the sides of the former, a little above the middle, and of the same form as the terminal rim, showing that this, like the form described by Mr. Wright from English waters, may stop building its tube for a time and then recommence.

The adult animal, tube and all, when fully extended, will measure $\frac{1}{25}$ of an inch in length. It is of the same color as *Stentor cæruleus*, but has the power of elongating and twisting itself as greatly as *S. ræseli.* The peristome is quite unlike that of *Freia ampulla* and bears a strong likeness to the blades of a pair of obstetrical forceps. The blades are deeply grooved, forming a deep ciliated demi-canal with parallel sides, and at the junction of their bases lies the spacious, twisted and richly ciliated pharynx, which is bounded dorsally and ventrally by the prominent folds which unite on either side with the long, curved lobes of the peristome. As in *F. ampulla* a finger-shaped knob, which may sometimes be extended as a long flexible appendage, surmounts the apices of the lobes of the peristome. There is a small basal disc as in Stentor and the ectosarc is traversed as in that genus by parallel granular bands, regarded as muscle fibers by some writers. The usual food balls and vacuoles are present, and I was enabled to define sharply the endosarc from the ectosarc, and clearly see the long-beaded nucleus. The tube or ribbon-secreting organ described by Wright I was unable to discover.

When fully extended the basal portion of the animal becomes attenuated to a thin bluish filament, which widens toward the peristome, where the body is over half as thick as the diameter of the tube. When fully retracted and resting, the animal resembles in its oblong shape a retracted and resting Stentor, and measures about $\frac{1}{10}$ as long as when fully extended. The agreement of this form with *F. producta* is in every respect so complete, that I have no doubt whatever that they are the same. The ribbon makes from four to twenty-four turns in specimens of different ages, and the turns are to the right. *F. stylifer* Wright, is probably only a variety of this species.—*John A. Ryder, Sept. 3d, 1880.*

RHIPIDODENDRON SPLENDIDUM.—This remarkable flagellate monad, which builds a fan-shaped test composed of radiating tubes in which the individuals live and divide, is not uncommon, attached to the leaves of Sphagum, from ponds in the neighborhood of Woodbury, N. J., from whence I have obtained it in material furnished me by Mr. W. P. Seal. Prof. Stein first described it from Bohemian waters.—*J. A. Ryder.*

A PALE VARIETY OF POLYXENES FASCICULATUS.—I have just picked up some specimens of Polyxenes that seem to me unusually pale in color. I find them under chips, sticks and bits of bark within forty feet of the sea beach, at St. Jerome, St. Mary's county, Md., on the Chesapeake bay. The beach at this place is composed of white sand, and these little myriapods seem to have acquired a reddish tinge with none of the bluish cast so characteristic of specimens which I have examined from the vicinity of Philadelphia. There is so little pigment in the body walls that with careful illumination I am able to see the viscera, filled with ingesta, very plainly. There are no other differences by which I can distinguish the form from *P. fasciculatus* Say. It may be called var. *pallidus.*

I wish also to record that all the inland specimens which I have found were always observed under the bark of trees, a fact which, I think, Mr. Say also records, but these I find invariably on the ground and in great numbers underneath the objects mentioned. —*J. A. Ryder.*

ZOOLOGICAL NOTES.—A communication has been found by F. W. Bennett between the air-bladder and the cloaca in the herring. ——The structure of the ovary, ovulation, fecundation and the first stages of development in the bats has lately been studied by Messrs. Van Beneden and Julin. A contribution to the study of the structure of the ovary of the mole, ermine and bat (*Vesperugo pipistrella*) by J. MacLeod, appears in Van Beneden and Bambeke's Archives de Biologie.——A good deal of attention is now being paid by anatomists to the nervous system of the lower animals, especially the ganglionic centers. A useful tract bearing on this subject is Liénard's "Constitution de l'Anneau Œsophagien." ——Mr. J. A. Lintner's Lepidoptera of the Adirondack region is an interesting contribution to zoö-geography, especially to our knowledge of the sub-arctic life of these mountains. It appears in the seventh report of the Adirondack Survey.——The researches carried on by the U. S. Fish Commission the past season from Newport out to the Gulf Stream, have resulted in the addition of a large number of new fishes and marine invertebrates. The hauls made in about three hundred fathoms under the edge of the Gulf Stream revealed a strange mixture of tropical and arctic life, with abyssal forms, including many shells and an interesting new starfish; 150 species new to the coast being dredged in a single day.——M. Fabre has discovered that two species of Halictus, a genus of bees, are parthenogenetic. They have two generations a year; a vernal and sexual one, originating from females which, fecundated in autumn, have passed the winter in their cells; the other æstival and due to parthenogenesis. From the union of the two sexes females alone develop; from parthenogenesis a brood of both females and males result. Aside from the Aphides these bees are, Fabre claims, the first example known of a sexual generation alternating with reproduction without union with a male.——A remarkable form of Pedicellaria and the functions performed thereby are described by W. P. Sladen in the Annals and Magazine for August.——Villot, after further study of the hair worms now asserts that the larvæ of the Gordii do not select their hosts; they encyst themselves and become developed in the most different animals (batrachians, fishes, crustaceans, Arachnida, insects and mollusks). It is, therefore, by no means the case that the larvæ of the hair worms are parasites peculiar to insects; they probably most frequent fishes, and only exceptionally infest terrestrial animals, and only these when accidentally exposed to water, many insects, as ground beetles, mantidæ, grasshoppers and locusts perishing in this way; the Gordii in them being set at liberty.

ANTHROPOLOGY.[1]

THE ANTHROPOLOGICAL SOCIETY OF WASHINGTON.—On the 10th of February, 1879, at the invitation of Dr. J. Meredith Toner, Col. Garrick Mallery, U.S.A., and Prof. Otis T. Mason, a few gentlemen interested in the study of man, met in the Smithsonian Institution to devise a method of mutual improvement. The effort resulted in the formation of the Anthropological Society of Washington, with Maj. J. W. Powell for president, Dr. Elmer R. Reynolds, recording secretary, and Otis T. Mason, corresponding secretary. The purpose of the members being to compare notes upon their different fields of research, the organization had no pretentious designs. It is not yet decided whether the journal will be published, inasmuch as the Smithsonian Institution and the Bureau of Ethnology afford ample opportunities of preserving all papers of permanent value.

The following is a list of papers read from the foundation of the society to the end of the year 1879:

1. Indian Pictographs. G. K. Gilbert.
2. Aztec and Guatemalan Antiquities. Otis T. Mason.
3. Arrow-making. Frank H. Cushing.
4. Color Blindness. Dr. Swan M. Burnett.
5. Prehistoric Archæology. Wills de Hass.
6. Indian Color Names. A. S. Gatschet.
7. Indian Pictographs. Miles Rock.
8. French and Indian Half-breeds. Dr. Victor Havard, U.S.A.
9. Indian Color Names. Albert S. Gatschet.
10. Comparative Mythology of the Indies. Col. Garrick Mallery, U.S.A.
11. Aboriginal Cemeteries near Piscataway, Md. Dr. Elmer R. Reynolds.
12. The Zoölogical Relationship of Man. Prof. Theodore N. Gill.
13. The Sign Language of the N. A. Indians. Col. Garrick Mallery, U.S.A.
14. Poisoned Weapons of the N. A. Indians. Dr. Wm. J. Hoffman.
15. Fertilizers employed by the N. A. Indians. G. Browne Goode.
16. Comparison of a written language with one that is spoken only. Otis T. Mason.
17. Aboriginal Shell Mounds at Pope's Creek. Dr. Elmer R. Reynolds.
18. Ancient Maps of N. America. John C. Lang.
19. Comparison of Forest and Geological changes in the Tropics. Miles Rock.
20. Estimation of the age of Prehistoric Remains. Capt. Edwin P. Lull, U.S.N.
21. Turtle-back Celts and their Uses. Dr. Elmer R. Reynolds.
22. Aboriginal Shell-heaps on South River, Md. J. D. McGuire.
23. Unclassed Disc-shaped Implements from Benning's, D. C. Dr. Elmer R. Reynolds.
24. A Strange old Chart. Lt. Com. W. Bainbridge Hoff, U.S.N.

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[1] Edited by Prof. OTIS T. MASON, Columbian College, Washington, D. C.